REMARKS

Claims 1, 4-27, 30-42, and 45-67 remain pending, and all of the pending claims have been amended. No new matter is introduced by the amendments of these claims.

The Examiner has rejected claims 1, 4-27, 30-42, and 45-67 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. In particular, the Examiner has stated that the term "managing a plurality of services, each of the service being accessible by a plurality of services" (in claim 1, 27, and 42) is unclear. Claims 1, 27, and 42 have been amended to clarify these terms. It is respectfully submitted that all pending claims meet the requirements of 35 U.S.C. 112, second paragraph.

The Examiner has objected to claims 4-26, 30-41, and 45-67 because of informalities. These claims have been amended per the Examiner's suggested amendments.

The Examiner has rejected claims 1, 4-23, 25-27, 30-42, 45-64 and 66-67 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Publication No. 2002-0091533 to Ims et al. (hereinafter Ims). The Examiner has also rejected claims 24 and 65 under 35 U.S.C. §103(a) as being unpatentable by Ims et al. in view of Picher-Dempsey (US 6,779,031). The Examiner's rejections are respectfully traversed as follows.

Claim 1 is directed towards a "method for correlating services within a computer network." Claim 1 further recites "providing a message interchange network for exchanging application-level messages between services that are located outside the message interchange network." Claim 1 also recites "registering, at the message interchange network, each of the plurality of services so that each service is specified as being accessible by one or more of the plurality of services according to one or more properties and permissions associated with each of the plurality of services" and "receiving, at the message interchange network, a plurality of application-level messages that each specify one or more of the plurality of services that are to receive the each application-level message and forwarding each received application-level message towards its specified service according to the one or more properties and permissions associated with the specified service." Claim 1 also recites "retaining correlation information regarding each application-level message received into message interchange network..." and "wherein the retained correlation information is retained in a searchable format that is accessible by the message interchange network." claim 1 also requires "receiving, at the message interchange network, a query from a first service to search the retained correlation information for a specific one or more portions of the retained correlation information" and "sending, to the first service, a response to the query that includes the specific one or more portions of the

retained correlation information." Independent claims 27 and 42 recite mechanisms for performing or providing the operations of claim 1.

In embodiments of the present invention, services that are located outside the message interchange network can communicate with each other through the message interchange network. This arrangement provides flexibility in allowing any number and type of entities to communicate with each other via an intermediary network. When a particular service is registered with the message interchange network, properties and permissions are associated with such registered service so as to allow other services access to such registered service. Embodiments of the message interchange network receive messages that specify their recipient services and forward such received messages to the specified recipient services. Embodiments of the message interchange network also operate to retain correlation information regarding such messages in a searchable format. Thus, when a query for a specified portion of the retained correlation information is received by the message interchange network, the specified portion of the retained correlation information may then be located and sent back to the service that sent the query.

The primary reference Ims is directed towards forming "XML automation scripts" (see Appendices A.2 through A.4) that specify what processes to implement for different types of data or documents that are passed between business partners. For example, an automation script specifies what processes are to be carried out with respect to a purchase order document sent by one business partner to another. Figure 4 highlights the arrangement contemplated by Ims, which shows a first business (400) communicating with a second business (450). However, Ims does not teach or suggest a message interchange network for "exchanging application-level messages between services that are located outside the interchange message network", in the manner claimed.

Additionally, Ims fails to teach or suggest mechanisms for registering services, that are each associated with permissions, with a message interchange network "so that each service is specified as being accessible by one or more of the plurality of services according to properties and permissions associated with each of the plurality of services", in the manner claimed. Since Ims fails to teach a message interchange network for "exchanging application-level messages between services that are located outside the interchange message network", Ims necessarily fails to teach or suggest a mechanism for registering with such a interchange message network, in the manner claimed.

Ims also requires that the business partners agree upon an automation script that specifies processes to be carried out on documents that are subsequently sent after formation of such

automation script. In Figure 8, an eServiceDefinition script is read in operation 805 and then the XML document is received in step 810. The eServiceDefinition script specifies the processes to be used on the XML document. In other words, actions to be taken with respect to the received XML document are specified in the eServiceDefinition script. For instance, the script specifies a starting process and branching services based on the outcome of the first service. See [0074]. The data exchange engine of the receiving business partner "reads this automation script, parses the XML document, and invokes the service correspondingly." See [0077]. Ims fails to teach or suggest "receiving, at the message interchange network, a plurality of application-level messages that each specify one or more of the plurality of services that are to receive the each application-level message and forwarding each received application-level message towards its specified service according to properties and permission associated with the specified [recipient] service", in the manner claimed.

Ims also fails to teach or suggest "receiving, at the message interchange network, a query from a first service to search the retained correlation information for a specific one or more portions of the retained correlation information" and "sending, to the first service, a response to the query that includes the specific one or more portions of the retained correlation information", in the manner claimed. Although Ims may be argued to recite receiving a query regarding correlation information [0068], it is respectfully submitted that Ims fails to teach or suggest mechanisms for receiving a query for a specific one or more portions of the retained correlation information and then sending a response with these specific one or more portions of the retained correlation information, in the manner claimed.

The Examiner's rejections of the dependent claims are also respectfully traversed. However, to expedite prosecution, all of these claims will not be argued separately. Claims 4-26, 30-41, and 45-67 each depend directly or indirectly from independent claims 1, 27 or 42 and, therefore, are respectfully submitted to be patentable over cited art for at least the reasons set forth above with respect to claims 1, 27 or 42. Further, the dependent claims require additional elements that when considered in context of the claimed inventions further patentably distinguish the invention from the cited art. Claims 24 recites "determining whether the first service is authorized to make the query and only sending the specific one or more portions of the retained correlation information that are sent to the first service when it is determined that the first service is authorized." The cited references fail to teach or suggest mechanism for only sending portions of retained correlation information that are specified in a query when the querying service is authorized to do so, in the manner claimed.

Applicant believes that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a

telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

                                                  Respectfully submitted,
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